

In the Claims:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled).
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
13. (Currently Amended) An isolated oligonucleotide having a nucleotide sequence selected from the group consisting of SEQ ID NO: 13, SEQ ID NO: 14, consisting of the nucleotide sequence of SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, and SEQ ID NO: 23.
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Currently Amended) An oligonucleotide probe comprising ~~one or more~~
~~oligonucleotides of claim 13 wherein said probe has the formula~~

$[X-Y-Z]_n$

wherein X is a sequence of 0 to 100 nucleotides or nucleotide analogs;

Y is ~~said one or more~~ an oligonucleotide consisting of SEQ ID NO:15, and

Z is a sequence of 0 to 100 nucleotides or nucleotide analogs, and

N is 1-500.

27. (Currently Amended) A pair of oligonucleotides ~~selected from the group of~~
~~oligonucleotides having~~ wherein the first oligonucleotide has the nucleotide sequences of SEQ
ID NO: 15 and the second oligonucleotide has the sequence of SEQ ID NO: 8; SEQ ID NO: 16
and SEQ ID NO: 8; SEQ ID NO: 17 and SEQ ID NO: 20 and SEQ ID NO: 21 and SEQ ID NO:
8.

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Original) A method of detecting a raphidophyte cell, comprising:

- a) permeabilizing said cell to expose the ribosomal RNA of said cell wherein said RNA has hypervariable regions;
- b) contacting the exposed RNA under hybridizing conditions with oligonucleotide probes capable of selectively hybridizing to said hypervariable regions to form a hybridization complex and
- c) identifying said hybridization complex to detect said raphidophyte cell.

33. (Original) The method of claim 32 wherein said hybridization complex is identified in a sandwich hybridization assay.

34. (Original) The method of claim 32 wherein said hybridization complex is identified in a fluorescent in situ hybridization assay.

35. (Original) The method of claim 32 wherein said oligonucleotide probes have sequences selected from the group consisting of SEQ ID NO: 3, SEQ ID NO 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11 and SEQ ID NO: 12.

36. (Original) The method of claim 32 wherein said oligonucleotide probes have sequences selected from the group consisting of SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22 and SEQ ID NO: 23.

37. (Cancelled)

38. (Cancelled)

39. (Currently Amended) An oligonucleotide kit for detection of raphidophyte cells comprising ~~one or more an oligonucleotides having a~~ consisting of the nucleotide sequence of ~~selected from the group consisting of SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ~~

~~ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, and SEQ ID NO: 22 and SEQ ID NO: 23.~~

40. (Original) The kit of claim 39 further including one or more hybridization buffers.

41. (New) The method of claim 32, wherein a first of said oligonucleotide probes has the sequence of SEQ ID NO:15 and a second of said oligonucleotide probes has the sequence of SEQ ID NO:8.

42. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 3.

43. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 4.

44. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 5.

45. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 6.

46. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 7.

47. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 8.

48. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 9.

49. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 10.

50. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 11.

51. (New) The method of claim 35, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 12.

52. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 13.

53. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 14.

54. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 15.

55. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 16.

56. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 17.

57. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: .18

58. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 19.

59. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 20.

60. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 21.

61. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 22.

62. (New) The method of claim 36, wherein said oligonucleotide probe has the sequence of SEQ ID NO: 23.